



NZ TRANSPORT AGENCY  
WAKA KOTAHI

## Roads of national significance



# Wellington Northern Corridor

Wellington Inner-city Tunnel to Tunnel Transport  
Improvements Project

# Summary of option selection process for improvements around the Basin Reserve

August 2012

# Summary of Option Selection Process for Improvements around the Basin Reserve

## Introduction

The NZ Transport Agency (NZTA) has completed investigations into how best to improve the efficiency of the transport network around the Basin Reserve, between Paterson Street and Tory Street. This project forms part of the **Wellington Inner-City Tunnel to Tunnel Transport Improvements Project**, which includes undergrounding Buckle Street and progressively upgrading and/or optimising the Inner-City Bypass.

This document summarises the findings of the scheme assessment report that has been prepared for the improvements proposed to the transport network around the Basin Reserve (the “project”).

**Figure 1 - Wellington Inner-City Tunnel to Tunnel Transport Improvements Project, with the Basin Reserve Improvements highlighted in yellow.**



The project is identified as a high priority project in the Wellington Regional Land Transport Strategy’s Ngauranga Corridor Plan, and forms part of the Wellington Northern Corridor Roads of National Significance (RoNS) programme. Project investigations have been undertaken in consultation with the Wellington City Council (WCC) and Greater Wellington Regional Council (GWRC), as well as community consultation.

The area around the Basin Reserve comprises a mix of land uses, including commercial, residential, institutional, and community facilities. The Basin Reserve itself is a significant venue, used for national and international cricket fixtures and also recreational community events such as Carols by Candlelight. The Basin Reserve area is also home to a number of schools, several churches, and Massey University’s Wellington Campus. Features of national significance nearby include Government House to the southeast and the National War Memorial on Buckle Street.

Near to the Basin Reserve, in the area of Buckle Street between Tory Street and Taranaki Street, a National War Memorial Park is to be created by the Government, with the Ministry of Culture and Heritage as the lead agency. Investigations for this project have included liaison with the Ministry in order to facilitate an integrated design solution between the National War Memorial Park and this project. In particular, investigations to date for this project have been undertaken with the knowledge that a decision had yet to be made on whether Buckle Street would be undergrounded or was to remain at-grade through the National War Memorial Park. This decision has recently been made and Buckle Street will be undergrounded as part of the Park’s development.

Wellington City Council has prepared a document that guides how future growth in the City is accommodated. This document directs growth to “a spine” between Johnsonville and Newtown/Kilbirnie which includes a more intense form of urban development along Adelaide Road (a key road to the south of the Basin Reserve). In conjunction with this proposed intensification, WCC and GWRC are currently investigating provision of a high quality public transport corridor between the Hospital at Newtown and the Wellington Railway Station. The efficiency of the street system around the Basin Reserve is critical to the performance of the public transport corridor being investigated and also public transport operations around the Basin Reserve as they currently exist.

## Existing Transport Problem

The road network around the Basin Reserve currently accommodates significant local and strategic movements; both north-south and south-north traffic flows between the Wellington CBD and Wellington’s southern suburbs, and traffic flows of State Highway One (SH1). Between the Terrace Tunnel and the Mount Victoria Tunnel, SH1 eastbound and westbound traffic flows follow different street systems with the pair of routes referred to as the Wellington Inner City Bypass. Eastbound traffic exits the Terrace Tunnel and follows Vivian Street and Kent Terrace, approaching the Basin Reserve from the north, before travelling along Paterson Street to the Mount Victoria tunnel. Westbound traffic exits Mount Victoria Tunnel and approaches the Basin Reserve from the east, before travelling along Buckle Street to the Terrace Tunnel.

The street system around the Basin Reserve functions as a square gyratory, like a very large roundabout with some traffic signals included. Traffic circulates clockwise, with major entry and exit points distributed around the periphery. On a daily basis about 26,000 vehicles enter this gyratory from Kent Terrace, with 18,000 vehicles exiting towards the Mount Victoria Tunnel, heading east. These flows are replenished by another 18,000 vehicles which join the gyratory from the Mount Victoria Tunnel heading west. Therefore, an undiminished flow of 26,000 vehicles moves around the southeast and south of the gyratory. Of these vehicles, 8,000 exit the gyratory heading south on Adelaide Road; 14,000 vehicles join the gyratory flow from that same road. The largest traffic flows, comprising 32,000 vehicles, travel around the southwest and western sides of the Basin Reserve gyratory (Sussex Street). Of these, 22,000 exit onto Buckle Street on the northwest corner and 10,000 travel to the northern exit at Cambridge Terrace.

Congestion and journey times around the Basin Reserve are predicted to more than double<sup>1</sup> by 2021. The conflicting demands of state highway and local road traffic is affecting the ability for WCC, GWRC and NZTA to deliver their long term strategies for an improved north – south passenger transport spine and an enhanced SH1 corridor between Wellington Airport and Levin. Consequently this is impacting on local and regional economic growth.

The existing problems are at their worst during AM and PM peak periods during weekdays, and also during the weekend (particularly between 11am and 5pm). As a consequence of these problems, there is a spill over of general traffic onto the local road network adversely affecting such as roads as Evans Bay and Oriental Bay Parades that access the eastern suburbs and the airport.

The Basin Reserve is located between the southern suburb of Newtown and the Wellington CBD. Similarly to other inner Wellington City suburbs, up to 25% of Newtown residents walk or cycle to work and these pass through or around the Basin Reserve. In addition, approximately 3,000 students attend the three schools within close proximity of the Basin Reserve, contributing to the large number of pedestrian movements in and around the Basin Reserve during weekdays and particularly commuting hours.

The majority of crashes around the Basin Reserve occur at the signalised intersections. It appears that occurrence of crashes involving pedestrians and cyclists is not significant.

In summary, the nature and extent of local and strategic transport demands existing around the Basin Reserve currently impact on:

- Passenger transport and freight journey times and reliability;
- Movement of people using active travel modes (walking and cycling);

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<sup>1</sup> Based on recently completed micro-simulation modelling (Paramics), and comparing the 2009 and 2021 journey times from the Evans Bay Parade to Willis Street intersections under a “do-minimum” scenario (a scenario that assumes improvements are not made), journey times in the AM peak are predicted to increase by 9 minutes (for example this trip currently takes about 8 minutes to complete, which is likely to increase to about 17 minutes in 2021 under a “do minimum” scenario).

- Emergency service access to and from Wellington Hospital;
- Access and severance to local communities, schools and facilities;
- Travel times, congestion, reliability and route security for motorists on SH1 as a strategic link between Wellington CBD and the east, including the Wellington Airport;
- Safety for all travel modes (walking, cycling, and vehicles); and
- Environmental conditions associated with high congestion levels.

## Strategic Context

### Ngauranga to Wellington Airport Corridor Plan

The Corridor Plan forms part of the Wellington Regional Land Transport Strategy 2010-40. It was developed by GWRC in conjunction with WCC and the NZTA, and, following public consultation, included in the Strategy in October 2008.

The Corridor Plan aims to strengthen four key transport elements within Wellington City, which are:

- 1 A high quality and frequency passenger transport 'spine';
- 2 Highly accessible and attractive 'activity' or shopping streets;
- 3 A reliable and accessible 'ring' or bypass route for vehicles, and;
- 4 Interconnected and convenient networks of local streets, walking, cycling and passenger transport.

The Corridor Plan sets out a number of transport activities/measures to be undertaken within 10 years and beyond. In relation to this project, the Corridor Plan proposes that NZTA investigate, design and then construct transport improvements around the Basin Reserve that:

- Provide grade separation of north-south flows from east-west flows of traffic;
- Improve passenger transport journey times and reliability;
- Improve walking and cycling facilities;
- Reduce crash rates; and
- Reduce severe congestion.

### Roads of National Significance

The identification and development of the seven RoNS in the Government Policy Statement (2009), including the Wellington Northern Corridor RoNS programme, is a cornerstone of the Government's strategy to unlock economic growth potential. Investment in these routes is expected to significantly improve access within and through NZ's largest cities, and to improve critical parts of national freight and tourism routes.

The objectives for the Wellington Northern Corridor RoNS programme are:

- To enhance inter-regional and national economic growth and productivity;
- To improve access to Wellington's CBD, key industrial and employment centres, port, airport and hospital;
- To provide relief from severe congestion on the state highway and local road networks;
- To improve the resilience of the transport network; and

- To improve safety and journey time reliability on SH1 between Levin and the Wellington airport.

This project is identified as one of the priority projects in the RoNS programme as it makes substantial contribution to a number of these objectives.

## Project Objectives

The objectives for this project are as follows:

- (a) To improve the resilience, efficiency and reliability of the state highway network:
  - by providing relief from congestion on SH1 between Paterson Street and Taranaki Street;
  - by improving the safety for traffic and persons using this part of the SH1 corridor; and
  - by increasing the capacity of the state highway corridor between Paterson Street and Taranaki Street.
- (b) To support regional economic growth and productivity:
  - by contributing to the enhanced movement of people and freight through Wellington City; and,
  - by in particular improving access to Wellington's CBD, employment centres, airport and hospital.
- (c) To support mobility and modal choices within Wellington City:
  - by providing opportunities for improved public transport, cycling and walking; and,
  - by not constraining opportunities for future transport developments.
- (d) To improve the efficiency of the road transport network in Wellington City by providing the separation of state highway through-traffic from local traffic in the vicinity of the Basin Reserve.

## Selection Process for the Preferred Option

### Option Development Process

The need for transport improvements around the Basin Reserve has long been recognised and there have been a number of investigations undertaken at various times over the past 50 years. A common theme recognised in all previous investigations has been the need to address conflict between north-south flows and east-west traffic flows at the Basin Reserve.

Current investigations for this project commenced in 2009. Before settling on a shortlist of options, a wide range of potential options were considered including options with roads all at-grade, or including grade-separation via bridge or tunnel structures. The options shortlisted included two options with the state highway on a bridge, one option with a local road on a bridge, two options with roads all at-grade, as well as a "long" east-west tunnel option.

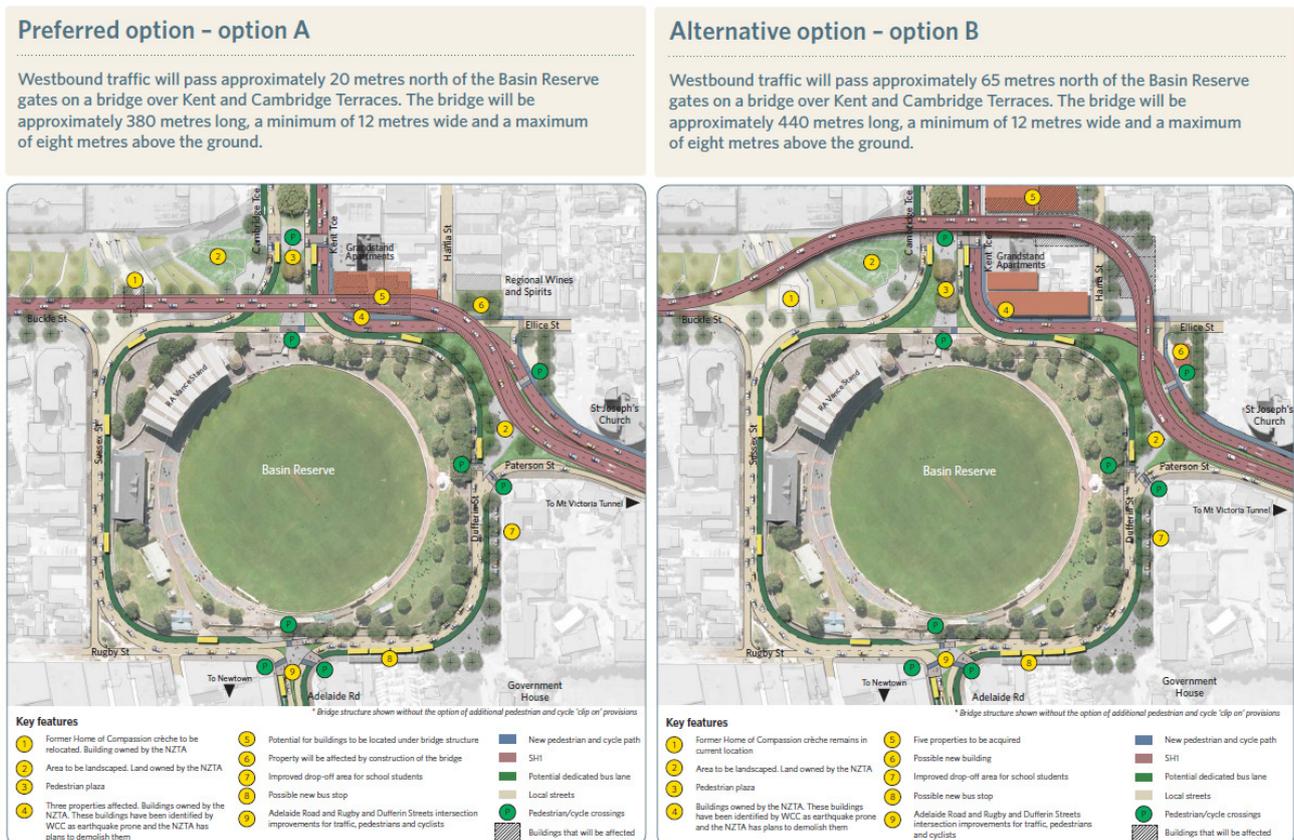
The development and assessment of the shortlisted options is described in the **Feasible Options Report** (January 2011).

Based on the investigations undertaken and taking into account the strategic context and project objectives plus affordability, in 2011 the NZTA selected two options on which to seek public feedback. Each option featured the state highway on a bridge, with the location of that bridge to be decided as that of "Option A" or "Option B".

## Public Engagement 2011

A comprehensive public engagement regarding all of the improvements proposed by the NZTA between Cobham Drive and Buckle Street was undertaken in the middle of 2011<sup>2</sup>. As part of this public engagement programme, the public was asked for their views on Options A and B (see Figure 2 below), and whether pedestrian and cyclist facilities should be included on the bridge.

**Figure 2 – Bridge options presented as part of the Cobham Drive to Buckle Street public engagement programme 2011.**



The Cobham Drive to Buckle Street Community Engagement Report (March 2012) sets out in detail the feedback received on the two bridge options. From the comments received, Option A was the bridge location favoured by submitters concerned about:

- Traffic noise and air quality for surrounding residents
- Cost, and
- Cityscape and character.

Option B was the bridge location favoured by submitters concerned about:

- Traffic noise and air quality at the Basin Reserve, and
- Heritage effects on the Basin Reserve and the former Home of compassion Crèche building.

There was strong community support for a pedestrian/cyclist facility to be included on the bridge.

WCC and GWRC each advised their preferences for Option A. It is noted however that WCC also advised that it preferred an east-west tunnel rather than a bridge and the Council considered Option A would require more mitigation than what was shown as proposed by the NZTA at that time (ie. mid 2011).

<sup>2</sup> Decisions on the second Mount Victoria Tunnel and the widening of Ruahine Street and Wellington Road will be announced separately towards the end of 2012.

## Selecting the preferred bridge option

Following the 2011 public engagement, the project team, representing all specialist disciplines involved in this project, rated Options A and B as they affect each specialist discipline area. Ratings of Effects were selected from:

- Severe Negative;
- Significant Negative;
- Moderate negative;
- Minor Negative;
- Insignificant;
- Minor Positive;
- Moderate Positive;
- Significant positive; and
- Substantial Positive.

Table 1 shows how Options A and B were rated for their effects on each specialist discipline area and then the Option preferred by each specialist discipline area

**Table 1 – Specialist effects rating of options.**

Specialist Area	Option A	Option B	Preferred Option
Transport	Significant positive	Significant positive	A
Social Impact	Minor Positive	Minor Negative	A
Ecology	Minor Negative	Minor Negative	No preference
Archaeology	Significant Negative	Significant Negative	B
Air Quality	Minor Negative to Insignificant	Minor Negative to Insignificant	A
Noise	Minor Negative	Minor Negative	A
Built Heritage	Severe Negative	Severe Negative	B
Urban Design and Landscape	Minor to Moderate Negative	Moderate to Significant Negative	A
Urban Design (peer review)	Moderate Negative	Significant Negative	A

Where the effects of Options A and B were rated as equal for a specialist discipline area, still most specialist disciplines had a preference between Option A and Option B (even though their preference was not strong enough to differentiate between the two options from an effects-rating perspective). In determining their overall assessment for “Preferred Option”, each specialist discipline area considered, amongst other things:

- The importance of the affected feature (eg landscape, ecology) in terms of local, regional, national or international significance;
- The severity of the effect that the proposed option has on that feature;
- How the effects vary with time including whether the impacts are temporary or permanent;
- How the effect varies spatially; and
- Any cumulative effects.

Overall, as set in Table 1, Option A consistently rated better than Option B.

Other key considerations include the expected cost of each option. Option A is expected to cost about \$15m less than Option B. Option B also has a greater impact on nearby properties, with up to 5 properties needing to be acquired by the Crown (with a combined value of about \$10m) compared to Option A's requirement for two partial properties to be acquired. As noted above, project partners WCC and GWRC, also indicated a preference for Option A.

Accordingly, on the basis of the findings of this investigation and the feedback from the 2011 public engagement, the recommendation was **Option A** be taken forward as this project's **Preferred Option**.

## The Preferred Option

The recommended scope of this project's Preferred Option is shown in Figure 3.

**Figure 3 - Preferred Option (Ground level view with bridge outline shown)**



The preferred option is a two lane bridge for westbound traffic extending for 260m from Paterson Street through to Tory Street. Adjacent the Basin Reserve, the bridge will be positioned approximately 20m north of the Basin Reserve.

The bridge itself will be approximately 13m wide (including a 3m wide pedestrian and cycle facility), with additional widening for sightlines and approximately 8m above the ground (although the clearance above ground level will be 6m). Construction materials will either be steel or concrete.

North-south traffic, including public transport, will pass underneath the bridge.

Key features of the project include:

- A pedestrian and cyclist facility is included on the north side of the new bridge linking the Mt Victoria tunnel with Buckle Street.
- The former Home of Compassion Crèche building needs to be shifted to a new location. The preferred location will need to be confirmed through discussions with NZHPT and WCC. A Conservation Plan is currently being developed to guide the relocation process.
- Landscaping on the corner of Buckle Street and Cambridge Terrace will integrate the bridge with the surrounding environment and extend the landscaping of the proposed National War Memorial Park down to Cambridge Terrace.
- A new entry plaza into the Basin Reserve between Kent and Cambridge Terrace.
- The construction of a building under the bridge between Kent Terrace and Hania Street. The commercial feasibility of the building has been investigated and a solution agreed that accords with urban design and crime prevention advice.
- A pedestrian/cyclist and vehicle lane connecting Ellice Street to Dufferin Street and Adelaide Road.
- Streetscape and safety improvements for the Dufferin Street and Rugby Street corner.
- Significant efficiency improvements for the Adelaide Road/Rugby Street intersection. A reduction in circulating traffic flow volume enables a reduction in traffic lanes and improvements for pedestrians and cyclists.
- Optimising the Kent/Cambridge/Pirie Street and Taranaki/Karo Drive intersections.
- The requirement and type of potential mitigation measure to help screen the bridge from within the Basin Reserve needs further consideration and discussion with key stakeholders. WCC is noted as the property owner of the Basin Reserve.

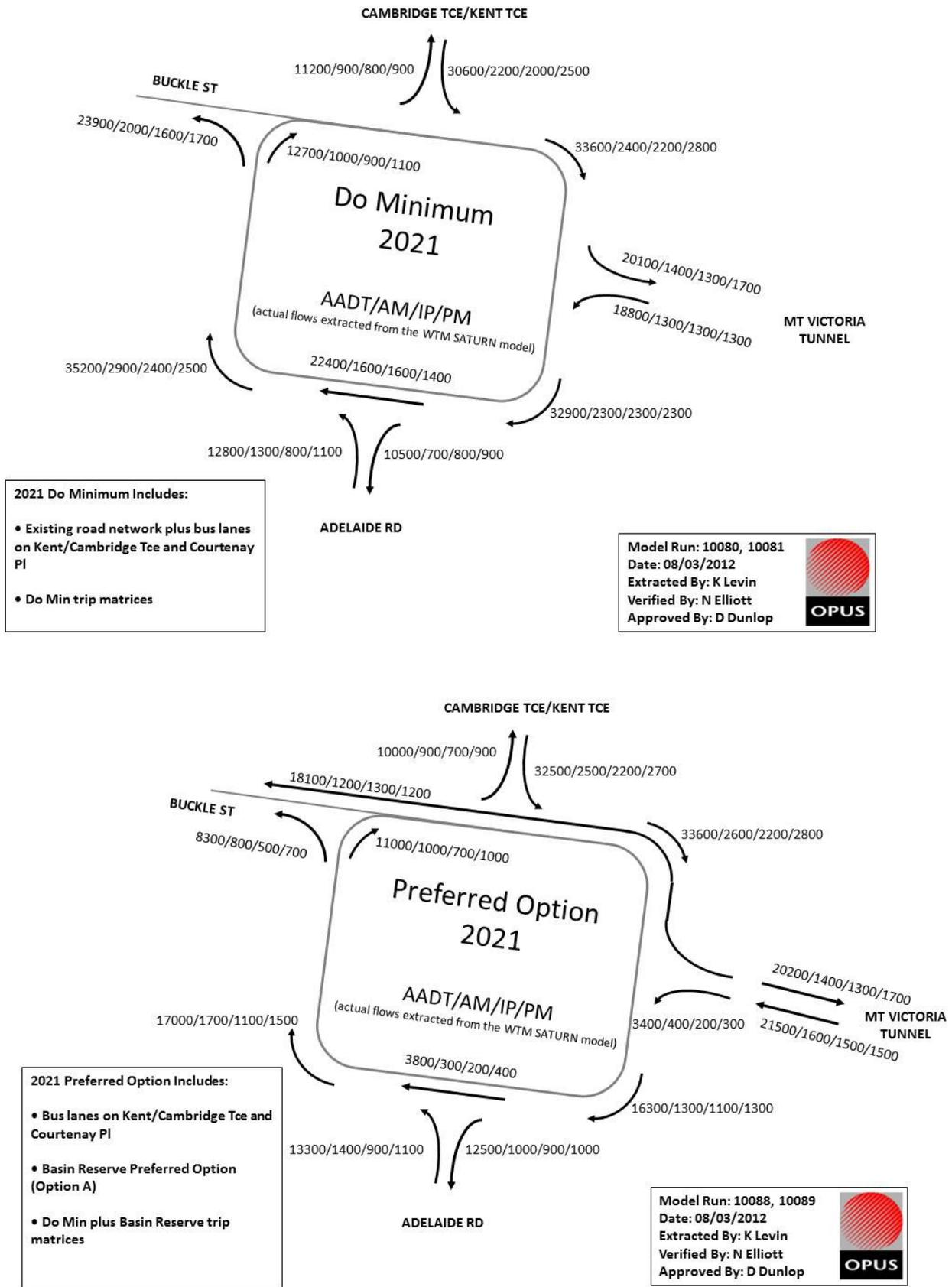
## **Buckle Street**

To date this project has been developed as other investigations have considered whether Buckle Street might remain at-grade or could be undergrounded in the future. As noted above, very recently a decision on this has been made and Buckle Street will be undergrounded as part of the National War Memorial Park development. Ongoing development of this project will include its effective integration with the Buckle Street proposals and the National War Memorial Park.

## **Performance of the Preferred Option**

The project will result in a reduction of traffic flows at street level around the Basin Reserve. Figure 4 summarises the predicted 2021 traffic volumes for the “do-minimum” (a scenario that assumes improvements are not made) and for the preferred option scenario (assuming this project is completed). It is important to note (other than this project in the preferred option scenario) the 2021 model assumes no other RoNS projects are in place.

Figure 4 - 2021 Do-minimum and Preferred Option Traffic Flows



The Project is expected to deliver the following transport outcomes:

### **Reduced travel times, congestion, and increased reliability and route security for motorists on SH1 as a strategic link between Wellington CBD and the east, including the Wellington Airport**

The project's provision of a grade-separated route for westbound traffic has significant benefits: resulting in about 40%<sup>3</sup> reduction in travel time variability for westbound SH1 traffic and during peak period up to 30%<sup>4</sup> reduction in travel time for the westbound SH1 plus greater route security during events, emergencies and times in which problems occur on the street system. The additional capacity provided and the removal of through-traffic from key local road intersections will provide wider congestion relief. The provision of a separate route for westbound traffic provides much greater route security during events, emergencies and times in which problems occur on the network.

### **Improved passenger transport and local road journey times and reliability**

Improved journey times and reliability for local road users will be achieved primarily through improved efficiency at the intersection of Adelaide Road and Rugby Street, and by significantly reducing the time allocated for vehicles exiting Mount Victoria Tunnel travelling through the Paterson Street/Dufferin Street intersection. The project also proposes provision of additional bus lanes and the shifting of the southbound bus stop from Adelaide Road to Rugby Street. The result is improved local traffic and bus journey times (30% reduction southbound in the PM peak<sup>5</sup>) and significantly less journey time variability between peak and inter-peak periods.

As a consequence of the project, there will be a reduction of general traffic from other more-distant local roads, such as Evans Bay Parade and Oriental Bay Parade.

### **Improved connectivity for people using active travel modes (walking and cycling)**

Improvements for active travel modes (walking and cycling) will be achieved through reduced traffic flow around the Basin Reserve resulting in a significant reduction in the severance caused by circulating traffic and within traffic signal timings there will be a greater allocation of time for pedestrian and cycle movements. With the project operating, traffic flow passing in front of the southern access point to the Basin Reserve (Rugby Street) is predicted at 80% less, so the traffic signals in this location can be operated on a pedestrian/cycle demand basis, instead of being controlled by traffic demands as currently exists. Similarly, for pedestrians and cyclists, the provision of a pedestrian/cycle facility on the bridge will reduce the at-grade severance currently experienced during west-east movements and broadly contribute to improved connectivity for these modes.

### **More reliable emergency service access to and from Wellington Hospital**

Emergency access to and from Wellington Hospital will be more reliable through reduced local road congestion (reducing delays) and the ability for emergency service vehicles to utilise the proposed bus lanes in the event of an emergency. This is especially relevant during peak times when congestion can currently cause periods of "gridlock" impacting on emergency access and responses times.

### **Improved access and reduced severance for local communities, schools, and facilities**

Access for local communities, schools, and facilities will be enhanced through a reduction up to 50% of traffic flow outside the main school gates of St Mark's Church School and Wellington College. Also in the area, Wellington East Girls' College and Mount Cook School will have improved pedestrian access. Although access out of the Mt Victoria residential area (using Hania and Ellice Streets) towards Adelaide Road and Sussex

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<sup>3</sup> Based on micro-simulation modelling for 2021, with predicted average trip differential reduces by 4min (from 9min 30sec to 5min 30sec).

<sup>4</sup> Based on micro-simulation modeling for 2021 for the trip from Evans Bay Parade to Willis St, journey times in the AM peak are predicted to reduce by 6min compared to the "do-minimum" scenario (ie from 17 minutes under the "do minimum scenario to about 11 minutes following completion of the project).

<sup>5</sup> Based on micro-simulation modelling for 2011, bus movements between Kent Terrace (pedestrian crossing north of Basin Reserve) and Adelaide Road (Douglas Street), predicted journey time reduced by 45sec (from 2min 30sec to 1min 45sec).

Street will be restricted, the project will provide some counter via improving access for this area from the Kent Terrace/Pirie Street intersection.

### Safety for all travel modes (walking, cycling, and vehicular)

The project provides significant benefits and opportunities for transport users whether they are pedestrians, cyclists, bus passengers or vehicles on the local roads or SH1. The project seeks to accommodate a range of other potential improvements to the local transport network that are known to be proposed, including outcomes of the public transport spine study that is currently underway and flows of traffic that are predicted with a second Mount Victoria tunnel.

The project's bridge provides two westbound traffic lanes for vehicles only and for pedestrians and cyclists a separate bridge facility is provided mostly alongside the vehicle-bridge. For vehicles using the bridge, lane-changing and merging type manoeuvres will be minimal compared with the current situation around the Basin Reserve, thus improving the smoothness of traffic flow and reducing the risk of crashes. Moving pedestrians and cyclists to the bridge from close proximity or conflict with vehicles will also significantly reduce the risk of crashes at a number of locations. Proposed changes to the Tory Street/Buckle Street intersection, including changes to the traffic signals, will allow better protection of pedestrian and cycle movements here.

## Scheme Estimate, Economics and Assessment Profile

The expected cost of this project is \$90m, and this cost has been verified through a process of parallel cost-estimation. Table-2 provides a summary of the breakdown of the expected cost.

**Table-2 – Breakdown of project expected cost (at March 2012)**

<b>Scheme Estimate</b>	
<b>Property</b>	\$9.4M
<b>Investigation and Reporting</b>	\$9.8M
<b>Design</b>	\$5.3M
<b>Construction (including MSQA)</b>	\$51.5M
<b>Risk Contingency</b>	\$14.0M
<b>Expected Project Cost (Total)</b>	<b>\$90M</b>
<b>95th Percentile Project Cost (Total)</b>	<b>\$106M</b>

These estimates are exclusive of GST and escalation.

In accordance with the NZTA Economic Evaluation Manual (EEM) the expected cost includes money for property acquisitions associated with a project, including money already spent. On behalf of the NZTA, the Crown has already spent approximately \$7m on property acquisition for this project. Approximately \$6m has already been spent on investigation works, public engagement, and preparing RMA applications.

### History and development of the project expected cost

The Feasible Options Report identified a project expected cost of \$75m (in 2009 dollars), which was an update on the original feasibility estimate that was first identified in 2008 following the completion of the Ngauranga to Airport Strategic Study.

The 2009 estimate included costs associated with additional urban design enhancements to the bridge, landscaping, a pedestrian/cyclist facility on the bridge, relocation of a Category 1 historic building, and correctly included the cost for all property already purchased for this project by NZTA ("sunk" property). All of these costs had not been previously included in the 2008 estimate.

The current project expected cost (shown in Table 3) reflects escalation since 2009, the addition of a pedestrian/cyclist underpass (since removed from the scope of works), an increase in the estimate of the

service relocation costs, additional preliminary and general costs, re-forecast of likely design phase costs and an update of the likely costs of the national consenting process (these costs have been based on the cost of the NZTA projects that have recently been processed by the Environmental Protection Authority).

It is noted that a \$14m contingency allowance to cover risks, such as additional mitigation measures, forms part of the \$90m project expected cost. This risk allowance has been revised up by \$3m since the 2009 expected cost.

Since the 2009 expected cost, costs of the project’s construction phase have been revised down. In particular, the following cost reductions have realised:

- A \$5m reduction in bridge costs through optimising the width and length of the structure. This includes a reduction in the expected cost of providing a walking and cycling facility on the bridge, and
- A \$0.9m reduction in landscaping and urban design costs.

### NZTA Funding Assessment and Economic Assessment Profile

The NZTA funding profile for the Wellington Northern Corridor RoNS programme is High for Strategic Fit, High for Effectiveness, and Low for Efficiency.

The current benefit cost ratio for the Wellington Northern Corridor RoNS package (as identified in the 2009 Business Case for the Wellington Northern Corridor RoNS programme) is set out in Table 3:

**Table 3 - Benefit cost ratios for the Wellington Northern Corridor RoNS programme**

Discount rate	Standard NZTA BCR	BCR (including wider economic benefits)
8 %	1.2	1.4
6 %	1.4	1.9
4 %	1.8	2.6

## Land Requirement

Most of the property required for the project is currently owned by NZTA. However, parts of two additional private properties are likely to be required. Negotiations with these parties are ongoing.

## Notice of Requirement and Resource Consents

A notice of requirement and various resource consents will be required for the project. It has been recommended to the project team that these applications be prepared under the expectation that they will proceed through the national consenting process administered by the Environmental Protection Authority.

As the project forms part of the Wellington Northern Corridor RoNS programme, it is likely to be considered a project of national significance under Part 6AA of the Resource Management Act 1991. In addition, the national consenting process should lead to a decision on the RMA applications within nine months of public notification, and is only subject to appeal to the High Court on points of law. This gives the project certainty regarding as to when the necessary RMA authorisations might be obtained.

With regards to the planned relocation of the former Home of Compassion Crèche building applications to destroy, damage or modify archaeological sites will also need to be prepared, lodged with and determined by the NZHPT.

## Conclusions

- The need for transport improvements around the Basin Reserve has been investigated at various times over the past 50 years, including this most recent study. The findings of this study are consistent with those of the previous studies. A common theme throughout this time has been the need to separate north-south traffic flows from east-west traffic flows.
- A project for transport improvements around the Basin Reserve has been devised and the need for this project has been identified in the Wellington Regional Land Transport Strategy and the Ngauranga to Airport Corridor Plan (2008).
- The project also forms part of the Wellington Northern Corridor Roads of National Significance programme.
- Options for the project were developed in response to the Corridor Plan and the objectives established for the project. Those options have been through a robust option selection process (including consideration of tunnel and at-grade options). Two options, Option A and Option B, were submitted to a public engagement programme in 2011.
- The views of stakeholders and the community have greatly assisted the project team to update their original assessment of Options A and B. These views have also been very helpful in guiding the project team in its selection of a preferred option for the NZTA.
- After thorough option evaluation processes, including the feedback from the public engagement, Option A is recommended as the preferred option. The effects of Option A consistently rated equal to or better than the effects of Option B in all of the evaluation criteria.
- In addition, Option A was identified as being approximately \$15m cheaper than Option B, and having less property impacts.
- A number of enhancements to Option A have evolved as part of the scheme development and since completing the public engagement programme in 2011. Feedback from the public has played a large part in many of those recommended enhancements.
- The benefits identified for the project, include:
  - (a) Improving travel time and reducing congestion, particularly along SH1;
  - (b) Providing improved public transport journey times and reliability;
  - (c) Improving the safety and reducing delays for the pedestrians and cyclists using the area;
  - (d) Providing for an enhanced pedestrian and cycle link (in conjunction with the duplication of Mount Victoria tunnel) between Hataitai and Wellington CBD, and
  - (e) By increasing accessibility to the area around Adelaide Road, supporting WCC's proposal for more intensified land use in this area.
- Various RMA and NZHPT approvals will be required for the project and these will need to be obtained before the project can proceed.

## Recommendations

It is recommended that the NZTA adopt **Option A** as the **Preferred Option**, and:

- A designation be sought via preparation of a notice of requirement which identifies the land required and how effects of the project can be managed;
- Regional resource consent applications be prepared and sought before or concurrently with the notice of requirement;
- An Assessment of Environmental Effects be undertaken to support the notice of requirement and resource consent applications;

- Stakeholders and the community are informed of the selection of the Preferred Option and provided ongoing information of the latest design concepts at the appropriate times; and
- The NZTA begin or continue its discussions with affected property owners at the appropriate times.

As the project moves through detailed design phases, it is recommended that further consideration be given to:

- Minimising the impact of the bridge structure on views down Kent and Cambridge Terraces
- Minimising the impact on the Basin Reserve heritage area;
- Use of the space under the bridge;
- Managing relocation of the former Home of Compassion Crèche building in a way that respects and celebrates its historic significance;
- Developing the streetscape around the Basin Reserve in a way that respects its context and appropriately enhances the activity, vitality and amenity of this important area;
- Views of key stakeholders such as WCC, GWRC, MCH, NZHPT and Iwi; and
- WCC regarding the state highway revocation process.